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REMARKS

This amendment is responsive to the Office Action dated March 25, 2004.

Applicant notes the renumbering of claim 10 as claim 9 by Examiner, and also the renumbering by Examiner of claims 11-17 as claims 10-16, occasioned by applicant's omission of a claim 9 and the consequent mis-numbering of the claims as originally filed. The foregoing renumbering by Examiner is assumed to have included the correction of the numbering of the claim dependency of the dependent claims amongst the group of claims, claims 10-16 (as renumbered), which were withdrawn from consideration as a result of the division requirement, discussed hereafter. Applicant apologizes for any inconvenience caused by the misnumbering.

The claims presented in this amendment in the new format assume that the claims renumbered by Examiner are the de facto original claim numbers of the claims filed in the application. Hence, a claim that has been renumbered by Examiner, say the renumbering of claim 11 to claim 10, is treated herein (in the new amendment format) as if the claim was originally numbered as claim 10. If that presumption is incorrect, applicant should so advise applicant and specify what should be done instead. Unfortunately, the new amendment procedure doesn't offer any specific guidance for this situation. Hopefully no confusion will result.

DIVISION REQUIREMENT. The Office Action refers to the election made in response to the telephonic division requirement made in the application. That division requirement required applicant to elect between the claims to group I, consisting of claims 1-9 to an article, and those to group II, consisting of the remaining claims 10-16 to a process. The Office Action and requires applicant's affirmation of that election. Applicant hereby confirms the election with traverse of the claims to Group I.

As a result, claims 10-16 stand withdrawn from consideration as being drawn to a non-elected invention.

Applicant traverses the foregoing division requirement and requests reconsideration. Group I is directed to the claims to the product, a substrate, while the claims of Group II are directed to a method of making that product. It would thus appear that the two groups are intimately related and that a search for the product (or

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conversely, for the process) should logically encounter the process (or conversely, the product). As the basis to the division requirement, examiner cites that the product can be made by a different process, and recites a process that is supposedly different from the claimed process, as proof of examiner's conclusion, but without offering independent proof, such as should be obtained if available from a third party prior art publication or patent, that is independent of the Examiner. Yet the process recited by the Examiner appears to be the same process that is described in claim 10 of the non-elected group, except that examiner neglects expressly reciting the step of cooling the substrate.

Examiner also asserts that the process can be used to make a different product and gives the example of a "decorative ceramic display, (ie. a vase)." That example, applicant submits, is facetious. No one in a proper state of mind would encounter the complications of manufacturing a substrate that satisfies criteria unique to microelectronic module substrates in order to fabricate a decorative vase. The examiners position is akin to finding that every product that any one could manufacture could be specified to have use (and classified) as a paper weight product. As example, a Sherman Tank, a desk, a laser printer, a computer, a clock, could all be said to be paper weights or, put a flower therein, and, voila, the products become decorative vases. Nothing in the prior art suggests such an exercise in futility. What seems clear is that the claimed invention did not exist heretofore, and that may be because a method for fabricating the invention (as set forth in the claims of Group II) did not exist previously.

Accordingly, applicant respectfully requests that the division requirement be reconsidered and withdrawn and that all claims be examined for patentability

By this amendment, claim 1 has been amended to define the invention with greater particularity. The remaining claims are unchanged.

THE CLAIM REJECTIONS.

Claim 5 was rejected under 35 U.S.C.112, second paragraph, as indefinite. The Patent Office asserts that the claim is indefinite because the examiner is unable to

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determine whether 99.6 per cent and the 96 percent figures referred to in the claim refers to weight or to volume. Applicant respectfully traverses the rejection.

Claim 5 is a dependent claim that depends from claim 2, which is also a dependent claim that depends from parent claim 1. Claim 1 recites at line 14 that the material of the first vitrified composition comprises "a first predetermined percentage by weight" and at line 20 of the claim that the second vitrified composition comprises "a second predetermined percentage by weight" (emphasis added). Thus, when dependent claim 5 specifies the respective first and second predetermined percentages as pure numbers, the claim is referring to the weight references contained in the parent claim. Because the claim contains a specific reference to the percentage being determined "by weight," applicant is unable to find any indefiniteness in claim 5. Applicant believes the rejection is error and respectfully requests the Patent Office to reconsider and withdraw the foregoing rejection.

Claims 1-4 were rejected under 35 U.S.C. 103(e) as being clearly anticipated by Polis et al., U.S. 6,531,209, granted March 11, 2003. This rejection is respectfully traversed.

The patent to Polis entitled "Suspension Adhesive for Bonding and Sealing Components in a Light Source," is directed to an adhesive for a lamp (light source). However, the claims in Polis are all directed to a light source, the lamp not to an adhesive.

The office action states that Polis discloses powder particles dispersed in a organic adhesive binder to form a layer, referencing col. 2, lines 39-43. Reference was made to Fig. 3, noting that each layer shown in the drawing figure contains a predetermined amount of alumina in the binder material, and that the center layer contains the filler amount that is between the two outermost layers (i.e. in quantity of filler material). The Office Action notes that after sintering, the layers (presented in Fig. 3 of Polis) when bonded together become "indistinguishable."

Claim 1 specifies a ceramic substrate for bonding to two different kinds of traces on opposed surfaces of the substrate. Polis doesn't show or teach a substrate, but an adhesive or a lamp, which are entirely different categories of product. Applicant submits

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that the Polis patent is non-analogous art. One wishing to build a substrate for microelectronic application would not be expected to be looking for that product in the "adhesive" art and would not be searching for same in the lamp art either, which appear unrelated subject matter. Further, in order to constitute anticipation, applicant believes that the prior art must show the same combination of elements with the same functional relationship set forth in the claim. For that reason alone it should be clear to those skilled in the art that Polis is unable to clearly anticipate claim 1 or even to just anticipate claim 1.

But there's another even more important reason why the Patent Office reliance on Polis is misplaced and is believed erroneous. Fig. 3 of Polis is not a product at all, but is a transitional assembly of the product of Fig. 6. In the stage of manufacture represented in Fig. 5, Polis states that the filler material particles of the components migrate together. That the filler material particles of the components and those of the adhesive are substantially indistinguishable. As stated at col 6, line 36 + the figure shows the filler material after sintering and states that the filler material particles have coalesced and formed relatively large interlinked crystals 610, and that the component filler material and the adhesive filler material remain indistinguishable and form a single solid part. See Polis Col 5 lines 49-54, which concludes: the "filler material particles fuse together to created a completed homogeneous part" (emphasis added).

The substrate described in claim 1 of the application is clearly not homogenous; the claim recites that the layers have first and second predetermined percentages by weight and that the second predetermined percentage is less than the first. Polis specifies a structure that is completely the opposite of that set forth in claim 1.

Additionally, claim 1 has been amended to further emphasize the difference between the two surfaces of the substrate. The claim now recites that: "*said first side surface possessing a physical characteristic more favorable to adherence of a conductive trace for conduction of RF current than is said second side surface and said second side surface possessing a physical characteristic more favorable to adherence of conductive trace for conduction of DC current than is said first side surface;*" As brought out in the specification the trace for RF conduction is thin, while the trace for DC power is thick.

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For all the foregoing reasons, applicant submits that the foregoing rejection of claims 1-4 as anticipated by Polis should be reconsidered and withdrawn.

Claims 2-4 are dependent upon claim 1 and include all of the limitations therein. Reference is made to the discussion of the rejection of claim 1 as anticipated by Polis, which is incorporated herein by reference. For that reason alone, applicant submits that dependent claims 2-4 define allowable subject matter.

Claims 1 – 4 were rejected a second time under 35 U.S.C. 102(b) as clearly anticipated by Baccini, U.S. 6,017,410. This rejection is respectively traversed. Applicant is unable to discern any clear anticipation and cannot discern any anticipation at all. Baccini relates to a method of anchoring foils for green tape circuits. Specifically, Baccini advocates the construction of a multiple layer green tape structure by welding one foil atop another foil with the layer-to-layer welds being arranged so as not to conflict with any printed circuit on the respective layers and in that way build up a multi-layer green tape structure. Baccini shows his technique on a green tape foil in which a printed circuit conductor appears only on one side of a foil (see Fig. 1). Baccini does not show printed circuit conductors on both top and bottom surfaces of any green tape foil. Why not, one may ask. Because it is likely that Baccini recognizes that the conductors on the top surface of one foil layer would short circuit against the conductors on the bottom surface of the foil layer above that layer in the stack.

The rejection made reference to column 1 lines 15-18 of Baccini as the basis for asserting that conductors are found on both front and back surfaces of the structure taught by Baccini. However, the cited location describes not the Baccini structure (e.g. Fig. 1) but the prior art. Specifically the passage recites: "*The hybrid circuits of the so-called green-tape technology consist of thin foils of alumina in the raw state or of another like or analogous material, which have a printed circuit on one or both of their surfaces.*" That statement does not anticipate (describe) the claimed invention. Nor does the description of Fig. 1 or other drawings in Baccini describe the claimed invention.

Claim 1 specifies a ceramic substrate for microelectronic application for bonding to two different kinds of traces on opposed surfaces of the substrate. Baccini doesn't

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show or teach a substrate, but a green tape assembly. And Baccini doesn't show different kinds of conductive traces on opposed surfaces of the green tape.

In order to constitute anticipation under 35 U.S.C. 102, applicant believes that the prior art must show the same combination of elements with the same functional relationship set forth in the claim. For that reason alone it should be clear to those skilled in the art that Baccini is unable to clearly anticipate claim 1 or even to just anticipate claim 1.

Claim 1 further specifies: "*said one of said plurality of layers comprising a first vitrified composition.*" Baccini doesn't show vitrification.

Claim 1 still further specifies: "*said powdered ceramic material in said second vitrified composition comprising a second predetermined percentage by weight of said second vitrified composition, said second predetermined percentage being less than said first predetermined percentage*" Baccini doesn't show or teach the relative percentages.

For those additional reasons it should be clear to those skilled in the art that Baccini is unable to clearly anticipate claim 1 or even to merely anticipate claim 1 under 35 U.S.C. 102.

While Baccini may provide ammunition for an attempt at an "obviousness" type rejection, applicant submits the reference fails to anticipate.

Moreover, claim 1 has been amended to further emphasize the difference between the two surfaces of the substrate. The claim now recites that: "*said first side surface possessing a physical characteristic more favorable to adherence of a conductive trace for conduction of RF current than is said second side surface and said second side surface possessing a physical characteristic more favorable to adherence of conductive trace for conduction of DC current than is said first side surface;*" The Baccini patent does show or teach those elements. As brought out in the specification the trace for RF conduction is thin, while the trace for DC power is thick. That also is not shown or taught in Baccini, likely because that is not an issue of any significance for Baccini. For all the foregoing reasons, applicant submits that the foregoing rejection of claims 1-4 as anticipated by Polis should be reconsidered and withdrawn.

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Claims 2-4 are dependent upon claim 1 and include all of the limitations therein. Reference is made to the discussion of the rejection of claim 1 as anticipated by Baccini, which is incorporated herein by reference. For that reason alone, applicant submits that dependent claims 2-4 define allowable subject matter.

Claims 1- 9 were rejected under 35 U.S.C. 103(a) as unpatentable over Polis in view of Baccini (US 6,017,410). This rejection is respectfully traversed. It is first noted that the rejection constitutes the **THIRD** prior art rejection of claims 1-4 and the second prior art rejection that relies on the patent to Polis.

Applicant refers to the discussion of the rejection of claims 1-4 as being anticipated by Polis and incorporates that discussion herein. Applicant also refers to the discussion of the rejection of claims 1-4 as being anticipated by Baccini and incorporates that discussion herein.

The foregoing obviousness rejection presents some short statements on the asserted content of each of the Polis and Baccini references, which statements applicant finds in some part incomplete and misleading. As example, Examiner refers to Fig. 3 as showing a structure of a product that contains a plurality of layers containing ceramic filler particles, a binder, and a dielectric material, and leaves one with the impression that the foregoing structure remains, when completed, as discernable layers. Examiner neglected to note that the final stage of production of the article, as described by Polis, is a homogenous one (in the transition from the stage of Fig. 3 to that of Fig. 6, following sintering), See Polis Col. 5 lines 49-54, which concludes: the "filler material particles fuse together to created a completed homogeneous part," and that the stacking of the layers presented in Fig. 3 is merely a transitional initial step in the fabrication of the adhesive or lamp assembly of Polis.

In transitioning from the starting materials through the sintering stage, Polis notes that the differences in the structure become minimal and effectively disappear (Col 6, line 43-54): *"It will be recognized that the present invention is applicable to joining components having a different volume percentage of filler material particles dispersed through the first component than the second component....The differences in filler material density become less apparent in each processing stage."* The description

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notes the materials coalesce and form relatively large interlinked crystals 610 (Col. 6 lines 38-40).

Thus instead of having two oppositely facing surfaces different as described by the claims, Polis teaches making the surfaces the same (i.e. homogenous) just as in the prior art described in the Background of the present specification, contrary to that represented by Examiner in the rejection. To the extent the statement in the rejection suggests otherwise, applicant submits that the cited statement is misleading.

Examiner's comments then turn to the Baccini patent. Examiner notes that Baccini teaches a "green tape circuit" comprised of a plurality of green tape foils and circuits, asserting those circuits are formed on the surfaces of the green tape foils; and that the alumina green tape foils are heat and pressure bonded to each other by a melting action and, in that way, are formed into a stack in which individual foils cannot slip or slide out of place. The basis for the foregoing assertion is stated to be at Col 1, lines 15-18 and Col 2, lines 27-30. But it is seen that col 1, lines 15-18 refers to the prior art where it is noted that prior art foils could have printed circuits on one or both of their surfaces, not to Baccini's invention, while col 2, lines 27-30 refers to Baccini's invention of spot bonding one layer to another, through the melting action of heat, one layer at a time. As earlier discussed in the anticipation rejections, Baccini doesn't show or teach employing printed circuits on both sides of a foil layer (as in the prior art referred to at Col 1, lines 15-18). The drawing figures of Baccini in contrast show circuits on only one side of the green tape foil layer and no other. Were circuits printed on both sides of the middle layers in the Baccini structure, the circuits on opposed foils would short-circuit and be rendered non-functional. That may be why the patentee chose not to address any such structure. Baccini course intends to improve upon the prior art, not repeat that prior art.

The rejection states that the prior art, presumably referring to the combination of Polis and Baccini, "teaches the present invention, but is silent about weight % of the aluminum oxide in each layer nor do they teach any thin film conductor or thick film conductor." Applicant disagrees. As earlier discussed, neither Polis or Baccini or any combination thereof teach the present invention. The foregoing statement of Examiner appears to be a non sequitur as to a number of the claims. Those claims which directly

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or indirectly refer to the percentage of aluminum oxide in each layer (or to the relative relationship of the aluminum oxide in one layer to another) and those claims that refer to thick and thin film conductors require those elements in order to constitute "the invention." See claims 5, 7, 8 and 9.

The rejection next explains that one skilled in the art would choose two similar composition green sheets (sic in the Polis/Baccini combination) to be adjacent to each other because similar compositions would have similar shrinkage during sintering or firing. Examiner follows with the statement that 96% by weight and 99.6% by weight are similar in composition. No explanation is given as to where the skilled person was motivated to choose different compositions or chose those two percentages for those compositions.

The foregoing statement is a reference to the process of the Baccini patent. The statement is misleading since shrinkage during sintering or firing is not a factor in the Baccini process. Shrinkage, if present, doesn't matter. Secondly, applicant submits that if shrinking is a problem, the correct logic to avoid undesired shrinkage that one skilled in the art would use is to chose two identical compositions for the green sheets in practicing the process of the Baccini patent. That's common sense, and that common sense teaches away from the invention. That's also what applicant finds that the prior art does, which is explained in paragraph [0015] of applicant's specification. They use the composition for the thin film conductor throughout as a compromise.

Next it is unclear what the Examiner means by some element in Baccini being "similar in composition." Certainly 96% and 99.6% are similar in composition in the absolute sense just as 99.6% and 50% are similar in composition in that same sense, depending on ones boundaries for similarity. It is not clear or understood what that fact has to do with any combination of Polis and Baccini. As applicant's specification brings out in the context of a substrate for microelectronic circuits there is a significant difference, that is, dissimilarity, in composition between 96% by weight and 99.6% by weight in the context of the present claimed invention which is explored at length in applicant's specification. The present invention exploits that dissimilarity.

The rejection further notes that examiner is taking the position that thin and thick (e.g. thick and thin conductors) are obvious variants of the prior art. The present specification concedes that both thin and thick conductors are known in the prior art of

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substrates and have been used previously on those substrates, the thin conductors being used for RF propagation and the thick conductors for DC transmission. But all that Examiner appears to be suggesting is that it may be "obvious to try" to use both thick and thin conductors in some combination (undefined) of Polis and Baccini.

Claim 1 specifies a ceramic substrate for microelectronic application for bonding to two different kinds of traces on opposed surfaces of the substrate. Claim 1 further specifies: "*said powdered ceramic material in said second vitrified composition comprising a second predetermined percentage by weight of said second vitrified composition, said second predetermined percentage being less than said first predetermined percentage.*" Claim 1, as amended, also recites that: "*said first side surface possessing a physical characteristic more favorable to adherence of a conductive trace for conduction of RF current than is said second side surface and said second side surface possessing a physical characteristic more favorable to adherence of conductive trace for conduction of DC current than is said first side surface;*" The foregoing is not shown or taught by either reference or by any combination thereof.

Dependent claims 2-6, directly or indirectly, depending from claim 1 and claim 10 are believed to be patentable for the reasons advanced in connection with the discussion herein of the rejection of claims 1, 7, 8 and 9.

Claim 7 recites that the first surface is of a ceramic composition that is optimal in physical characteristic for bonding to a thin film conductor and the second surface is of a composition that is optimal in physical characteristic for bonding to a thick film conductor, and that the latter composition is different than said former composition. The foregoing is not shown or taught by either reference or by any combination thereof.

Claim 8, dependent upon claim 7, further recites that composition that is optimal in physical characteristic for bonding to a thin film conductor (and) "comprises aluminum oxide and binder in which said aluminum oxide constitutes 99.6% by weight of said composition; and wherein said composition that is optimal in physical characteristic for bonding to a thick film conductor comprises aluminum oxide and binder in which said

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aluminum oxide constitutes 96% by weight of said composition." The foregoing is not shown or taught by either reference or by any combination thereof.

Claim 9 recites: said first layer further comprising a first fused mixture of aluminum oxide powder and binder in which said aluminum oxide powder in said first fused mixture comprises 99.6 % by weight of said first fused mixture, and said second layer further comprising a second fused mixture of aluminum oxide powder and binder in which said aluminum oxide powder in said second fused mixture comprises 96% by weight of said second fused mixture; a thin film conductor deposited on and attached to said upper side; and a thick film conductor plated on and attached to said lower side. The foregoing is not shown or taught by either reference or by any combination thereof.

In great part Examiner successfully located various bits and pieces of prior art contained within the invention, but not all. It is accepted that most new or improved combinations are built up from components which were already known. The fact that a component is found within another device, is not however a teaching to extract that component and substitute it in still another device in order to construct the claimed combination. Absent the teaching of applicant's specification, there is no rhyme or reason to make that reconstruction.

The mere fact that a person skilled in the art "could" make such a change, that is, possesses the technical ability to make the change, given the direction to do so by the Applicant, does not make the claimed invention "obvious" under 35 USC 103. The direction to do so must be given by the prior art. Here the reasoning behind the rejection falls short. In short, a rejection cannot be based on assertion that it is "obvious to try" to make the change without any purpose other than to try, and a rejection cannot be based on hindsight reconstruction using the applicant's specification.

One is reminded that, a "person of ordinary skill in the art is presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate." Standard Oil Co. v. American Cyanamide Co., 774 F.2d 448, 445 [227 USPQ 293, 297-298] (Fed. Cir. 1985). And "Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so."

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ACS Hospital Systems, Inc. v. Montefiore Hospital and Wells National Services Corp., (CAFC 1984), 221 USPQ 929, 732 F.2d 1572.

A prior art reference "must be considered in its entirety, i.e., as a whole, including portions that would lead away from the invention..." It is error to "*focus on isolated minutiae in a prior art patent while disregarding its scope, i.e., its entire disclosure, and how its disclosed structure works*". Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1568, 1574, (1 USPQ2d 1593, 1597, 1602, (Fed. Cir. 1987).

"When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination." (citations omitted and emphasis added). Uniroyal Inc. v. Rudkin-Wiley, 837 F. 2d 1044, 1051 [5 USPQ2d 1434, 1438] (Fed. Cir. 1988).

The Office's opinion perhaps is implicitly based upon the thought that it is "obvious to try", a test of patentability that has been found unacceptable, and not from any teachings found in the references. See In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), which provides additional guidance:

"The Eads and Warnick references disclose, at most, that one skilled in the art might find it obvious to try the claimed invention. But whether a particular combination may be "obvious to try" is not a legitimate test of patentability."

"Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art."

"But it cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination", citing with approval American Hospital Supply 221 USPQ 931.

"One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention" (at page 1600).

In Ex-parte Levengood, 28 USPQ2d 1300 (Bd Pat. App & Int 1993), the Board of Patent Appeals and Interferences reversed an Examiner since the references fell short of providing the "motivation" or "suggestion" to assemble the teachings into a viable process. As stated by the Board:

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"An examiner cannot establish obviousness by locating references which describe various aspects of a patent applicants invention without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done." (at page 1302) Emphasis Added.

A more recent decision repeats those admonitions, and more. In *In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir. 1998), the court states "Where a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. See *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987)" (at p 1456).

(At page 1458) "To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed."

...

...Rather just as it (sic the Board) relied on the high level of skill in the art to overcome the differences between the claimed invention and the selected elements in the references, it relied upon the high level of skill in the art to provide the necessary motivation...If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance"....."To counter the potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness."

..."Because the Board did not explain the specific understanding or principle within the knowledge of a skilled artisan that would motivate one with no knowledge of Rouffet's invention to make the combination, this court infers that the examiner selected these references with the

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assistance of hindsight. This court forbids the use of hindsight in the selection of references that comprise the case of obviousness. See In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). Lacking a motivation to combine references, the Board did not show a proper prima facie case of obviousness."

With hindsight applicant's invention may likely appear to be simple and Examiner might feel that anybody can do "that", an impression one might acquire from the multiplicity of different prior art rejections in the application. Yet one is reminded that under the patent law simplicity does not bar patentability.

As stated in In re Oetiker, 24 USPQ 2d 1444, 1446:

"Simplicity is not inimical to patentability. See Goodyear Tire & Rubber Co. v. Ray-O-Vac Co. 321 U.S. 275, 279, 60 USPQ 386, 388 (1944) (simplicity of itself does not negative invention); Panduit Corp. v. Dennison Mfg Co. 810 F 2d. 1561; 1572; 1 USPQ 2d 1593, 1600 (Fed Circ.) (the patent system is not foreclosed to those who make simple inventions), cert denied, 481 U.S. 1052 (1987).

As earlier stated in In re Scott, 139 USPQ 297, 300

"Appellant's invention is admittedly a simple one, but we believe it to be an unobvious solution to a specific problem. The rejection, in our opinion, is based upon an improper hindsight view of the art after having full benefit of appellants disclosure...."

..."As this Court stated in In re Sporck, 49 CCPA 1039, 133 USPQ 360, 363: The fact that the invention seems simple after it is made is not determinative of the question of obviousness. If this were the rule, many of the most beneficial patents would be stricken down. If those skilled in the mechanical arts are working in a given field and have failed to discover a certain new and useful improvement, the one who first makes the discovery frequently has done more than make an obvious improvement which would have suggested itself to a mechanic skilled in the art, and such an invention is entitled to the grant of a patent thereon."

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The foregoing citations may be updated with a legion of cases that repeat the same admonitions, but that seems redundant and unnecessary. Applicant submits that the foregoing is still good patent law.

Being a rejection based on obviousness (35 USC 103), the rejection appears unfinished in that the Examiner fails to discuss how or in what way the teachings of references to Polis and Baccini are to be combined by a person skilled in the art to derive the claimed invention (found in independent claims 1, 7 and 9), and applicant is unable to determine what was in Examiner's mind because the task does not appear obvious. Applicant respectfully requests that Examiner explain in detail how the two references are asserted to be combined to result in the claimed combination, should Examiner persist in the rejection.

In sum, there is no teaching or motivation in the prior art to combine the teachings of Polis and Baccini. Even if one combined the teachings of those patents, it is not show how or why one would obtain the invention defined by the present claims. As becomes clear from the foregoing discussion, examiner dismisses the claimed invention by simply divining as obvious to examiner the elements of the invention that examiner was unable to locate in the references. Applicant submits that the rejection appears to be a focused effort to reconstruct the claimed subject matter using the benefit of impermissible hindsight gleaned from the applicant's specification; and, despite the benefit of that hindsight, the effort fails.

Applicant believes that the foregoing amendment to the specification and claims places the application in condition for allowance. Accordingly, an early notice of allowability is respectfully requested.

The patents to Ohtaki, US 5,300,163, Rellick, US 4,655,864, Taguchi et al., US 4,464,420, Herron et al., US 4,598,107 and Prabhu et al. US 5,866,240, cited of interest, were considered, but do not appear to merit additional discussion.

CLAIM SUMMARY.

Claims 1-16 were in the application as filed and those claims remain present for examination.

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ADDITIONAL CLAIM FEES

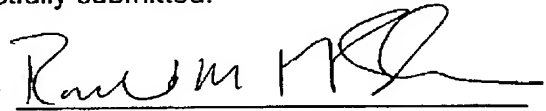
The number of claims as originally filed in total remains below twenty. The number of independent claims remains unchanged at three. Accordingly, no additional claim filing fee is due.

The undersigned attorney is available by telephone to provide appropriate assistance to Examiner in an attempt to expedite the grant of the patent. Feel free to telephone.

Respectfully submitted:

Dated: June 18, 2004

By



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